

ROCK BORERS or FALSE PIDDOCKS

Family: VENERIDAE (PETRICOLINAE)

Petricola lapicida (Gmelin, 1791)

cf. *Petricola* sp. 1

Petricolinae d'Orbigny, 1840

The members of this sub-family were previously assigned to its own family Petricolidae d'Orbigny, 1840. Since 2010 they are considered as a sub-family of Veneridae Rafinesque, 1815 with six genera of which *Petricola* is one. (MolluscaBase/WoRMS; Bieler et al, 2010)

Shells small to medium, thin, oval to elongate, inflated, gaping at the posterior. They nestle in cavities, often boring into clay, peat, wood, limestone, and dead coral. Those species that burrow into soft substrates are elongate, those that nestle in cavities in hard substrates are ovate. The umbones are anterior, no lunule or escutcheon. The hinge is weak and narrow, with three cardinal teeth in the left valve and two in the right, laterals being absent (contrasting with other Veneridae that have three cardinals in each valve, many with lateral teeth). A deep pallial sinus is present, confluent with the pallial line or not. Sculpture is predominantly radial, with wrinkled or nodulose ribs or threads. Some with concentric sculpture as well.

The genus *Petricola* “have fine divaricate, sometimes zigzag sculpture, an ovate shape, and a well-sunken ligament” (Coan, 1996). But there are exceptions that have predominantly concentric sculpture.

- Coan, 1996; Eisenberg, 1981 (1989 edition) p 202.



Petricola:

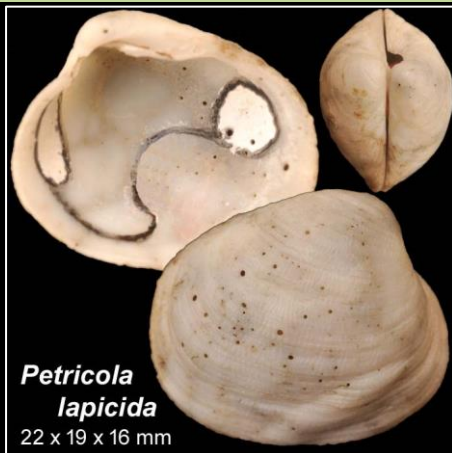
Left - Divaricating radial sculpture can take a zigzag form.

Centre & Right - Three cardinal teeth in left valve and two in right. External ligament sunk in deep groove, supported by a shelf-like nymph.



Petricolinae

Petricola



Petricola lapicida

22 x 19 x 16 mm



Petricola lapicida

Actual size 22.34mm



Petricola lapicida

Surface

MF679: Jaffna, Analaitivu, empty, embedded in a lump of beached stiff mud.

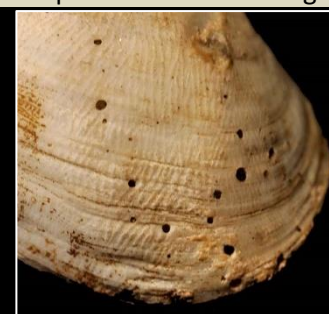
Sculpture of criss-crossing ribs.



Left valve



Right valve



Left valve 3 CT, the anterior two united in an inverted 'V'

Right valve teeth missing (damaged). Ligament remnant in deep groove.

Zigzag sculpture and tiny holes drilled in the shell.

***Petricola lapicida* (Gmelin, 1791)**

[*Venus lapicida* Gmelin, 1791 - original name. *Petricola divaricata* d'Orbigny, 1853, *Petricola divergens* (Gmelin, 1791) are some of the synonyms.]

Shell strong, sub-quadrate, equivalve but posterior extremity slightly deviated to the left. Umbones prominent, in front of midline, rounded, beaks point forward, narrow gap in between. Anterior margin broadly rounded, posterior broadly subtruncate, ventral convex. No byssal gape, no posterior gape. Ligament external, sunken, nymphs present. Left valve with three cardinal teeth, the anterior two united in an inverted "V" shape. Right valve hinge area damaged, teeth missing, a nymph present under the ligament remnant. (Valentich-Scott and Tongkerd describe "...the left valve with thin posterior cardinal and thick bifid anterior cardinal, right valve with two stout cardinals." The shell described by him was 8.22 mm long.) Anterior muscle scar narrow, elliptical; posterior scar large, rounded. Pallial sinus moderate, semi-circular, pointing towards beaks, the inferior limb not confluent with the pallial line. Sculpture of fine divaricating/criss-crossing ribs overlying coarse, irregular concentric wrinkles. Dull white.

Said to burrow into limestone and dead coral by chemical means.

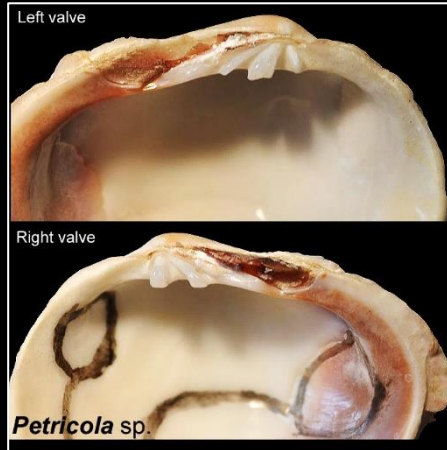
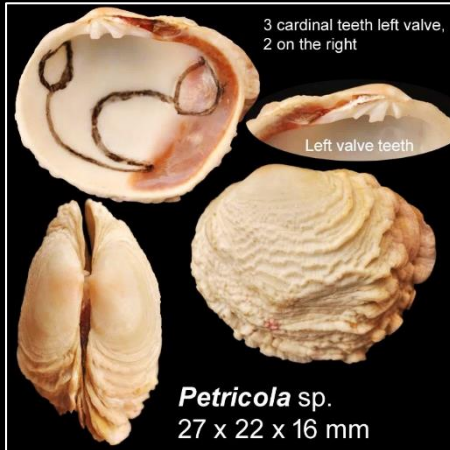
22.34 x 19 x 16 mm

Jaffna, Analaitivu, in cavity of beached lump of stiff mud.

Note: This shell was found in a lump of solid mud. It is covered in many small pin-prick sized perforations that penetrate the full thickness of both valves. These are likely to be made by boring organisms, no indication as to when. The radial ribs over the posterior that are described in literature formed of grit laid down over the shell are not present. The hinge plate is damaged in one valve. The shell looks weathered. It is suggested that this shell was included in mud at a later stage, following release from its original burrow that might have been damaged and being washed up on to a muddy shore where it was buried.

- Valentich-Scott & Tongkerd, 2008 pp. 199-200; Valentich-Scott & Dinesen, 2004 pp. 350-351; "Let's Talk Seashells" website.

Undetermined *Petricola*



MF244 Off Kirinda, Great Basses Lighthouse, 10 m, empty, lying free on bottom.

Close-ups to show dentition, external ligament in deep groove supported by a nymph and sculpture consisting of thick, erect radial ribs joined side-to-side to form concentric lamellae.

'*Petricola*' sp. 1

Shell small, sub-quadrate, with small rounded anterior umbones. Valves unequal, the right larger. Anterior broadly rounded, confluent with the arcuate ventral. Sloping postero-dorsal to angulated junction with broad, obliquely truncate posterior margin. Ligament external in a deep groove. Hinge narrow, three cardinal teeth in the left valve, the middle tooth thick, barely bifid, two stout teeth in the right valve the anterior barely bifid. Anterior adductor muscle scar pear-shaped, the posterior scar larger, also pear-shaped. The pallial sinus semi-circular, apex directed forwards and upwards, the inferior limb not confluent with the pallial line.

Sculpture of thick radial ribs joined side-to-side forming thick, irregular, erect concentric lamellae with rounded edges, thicker towards the posterior margin, absent over the umbonal area.

27 x 22 x 16 mm

Kirinda, off the Great Basses Lighthouse, 10 m, empty, on the sand bottom.

Note: This is highly likely to be a *Petricola* species. The dentition and sunken external ligament justify placement in the subfamily Petricolinae. The shape of the pallial sinus is similar to that of *Petricola lapicida* and is also similar to the sinus shapes of other species of *Petricola* on the internet. The radial sculpture becomes apparent at high magnification with oblique lighting. No images of similar shells have been located on the internet. There appear to be a number of species that have concentric sculpture, but it is not clear whether the sculpture is purely concentric or made up of radial elements like in the index species.

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